

1 ***In the Claims:***

2 Please add claims 7-20 as follows. All pending claims, whether or not amended, are
3 presented below for the Examiner's convenience and will replace all prior versions, and
4 listings, of claims in the application:

5 1. (Canceled)

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K1 7 2. (Canceled)

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9 3. (Canceled)

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11 4. (Canceled)

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13 5. (Canceled)

14
15 6. (Canceled)

16 7. (New) A method for a computer repairing itself to an operational status at any
17 time during operation, the method comprising the computer-executed steps of:

18 booting from a first hard disk drive boot device disposed within a main
19 computer hardware box of the computer;

20 then, in response to receiving a signal indicating a need for repair of the
21 computer during the booting or during any operating state, booting from a second hard disk
22 drive boot device; the second hard disk drive boot device being physically present within the
23 main computer hardware box of the computer prior to receiving the signal indicating a need
24 for repair; and

25 then repairing software on the first hard disk drive boot device while booted
26 from the second hard disk drive boot device and selectively either: (i) maintaining operation
27 of the computer from the second boot device to restore operational status of the computer
28 during repairing of the software on the first hard disk device, or (ii) changing to operation of

1 the computer from the second boot device to the first boot device to restore operational status
2 of the computer.

3 8. (New) The method of claim 7, wherein the step of repairing software further
4 comprises:

5 copying software from a device other than the first boot device onto the first
6 boot device, said device other than said first boot device being either said second boot device
7 or a third device different from said first boot device and said second boot device; and

8 said copying of software including the copying of any application, operating-
9 system, repair-process software, template, backup, archive software, boot record, a partition
10 table, and a basic input-output system (BIOS).

11 9. (New) The method of claim 8, wherein the step of booting from a second boot
12 device comprises:

13 automatically under computer control altering identification jumpers of a data
14 storage device to be switched to logically and physically switch the second boot device to
15 make the second boot device bootable.

16 10. (New) The method of claim 8, wherein the signal indicating a need for repair
17 is either: (i) self-generated by the computer without human intervention; or (ii) generated by
18 the computer in response to a single action by an external user, said single action selected
19 from the set of actions consisting of: pressing a key or combination of keys on a keyboard of
20 the computer and pressing or changing the state of a physical switch different from an on-off
21 switch of the computer and exposed on an exterior surface of the main computer hardware
22 box of the computer.

23 11. (New) The method of claim 10, wherein the step of repairing software
24 comprises: automatically repairing software on the first boot device according to preset
25 preferences without further direction from the user, the preset preferences designating to
26 repair the computer according to whether: to recover data, to run a virus check, to reformat
27 the first boot device, to revert to a backup, or to run diagnostics.

1 12. (New) The method of claim 10, wherein the step of repairing software
2 comprises: reformatting the first boot device and then copying software onto the first boot
3 device; or resetting parameters in a persistent memory and then copying software onto the
4 first boot device.

5 13. (New) The method of any of claims 11, wherein:

6 before booting from the second boot device, software is installed onto the
7 second boot device; and the installing software onto the second boot device comprises one of:
8 (a) installing software onto the second boot device; (b) copying installed software onto the
9 second boot device; (c) copying installation software onto the second boot device; and (d)
10 writing onto the second boot device a version of an operating environment running as a result
11 of the boot from the first boot device; and

12 after the installing software onto the second boot device and before the
13 booting from the second boot device, protecting the second boot device from further
14 modification; the protecting selected from the set of protective measures consisting of (i)
15 switching the second boot device to a state of unavailability; and (ii) switching the second
16 boot device to a read-only state.

17 14. (New) The method of claim 9, wherein:

18 the step of repairing software further comprises copying software from the
19 second boot device onto the first boot device;

20 the step of copying software further comprises copying any of application,
21 operating-system and repair-process software, and copying any of a boot record, a partition
22 table, and a basic input-output system (BIOS);

23 the step of repairing software further comprises copying one of template,
24 backup and archive software from a device other than the first boot device onto the first boot
25 device;

26 the step of repairing comprises copying one of template, backup and archive
27 software from the second boot device onto the first boot device;

1 the step of booting from a second boot device comprises switching the second
2 boot device to make the second boot device bootable;

3 the step of switching comprises generating the signal indicating a need for
4 repair;

5 the step of booting from a second boot device comprises one of logically
6 switching the second boot device, and physically switching the second boot device; and the
7 step of physically switching comprises altering identification jumpers of a data storage device
8 to be switched, or turning on or off the power to a data storage device to be switched;

9 the signal is generated by a user altering the state of a physical switch different
10 from an on-off switch of the computer and exposed on an exterior surface of the main
11 computer hardware box of the computer;

12 the step of repairing software comprises automatically repairing software on
13 the first boot device without further direction from the user according to preset preferences,
14 the preset preferences selected from the set consisting of repairing according to whether (i) to
15 recover data, (ii) to run a virus check, (iii) to reformat the first boot device, (iv) to revert to a
16 backup; (v) to run diagnostics, and (vi) combinations thereof.

17 15. (New) The method of claim 9 wherein before the step of repairing software
18 the following step is performed: offering a user a choice of thoroughness of repair selected
19 from the set of repairs consisting of a quick repair that re-installs or copies template software
20 without first re-formatting, a better repair that performs a high-level re-format before that
21 copy or re-installation of software, and a best repair that performs a low-level re-format
22 before copying over or re-installing software.

23 16. (New) A computer that repairs itself to an operational status at any time during
24 operation, the computer comprising:

25 a main computer hardware box;

26 a CPU disposed within the main computer hardware box;

1 a memory disposed within the main computer hardware box;

2 first and second controllers for respective first and second hard disk drive data
3 storage devices disposed within the main computer hardware box of the computer prior to a
4 need for repair, the second data storage device containing at least one of a backup and a
5 master template;

6 a bus, communicatively coupling the CPU, memory and first and second
7 controllers;

8 a switch, communicatively coupled to the second hard disk drive data storage
9 device, for altering the accessibility of the second data storage device to the CPU and
10 exposed through the main computer hardware box or at a surface of the main computer
11 hardware box for manipulation by a user, the switch further including at least one of a switch
12 component for switching an identification setting of the second data store and a switch
13 component for switching power to the second data store, and a switch controller for
14 monitoring the first and second data storage devices to prevent damage to the first or second
15 data storage device during switching; and

16 means for controlling the self-repair of the computer cooperatively coupled
17 with said CPU, said first and second controllers, and said switch.

18 17. (New) The method of claim 11, wherein the step of repairing software
19 comprises: automatically repairing software on the first boot device according to preset
20 preferences without further direction from the user, the preset preferences designating to
21 repair the computer according to whether: to recover data, to run a virus check, to reformat
22 the first boot device, to revert to a backup, or to run diagnostics.

23 18. (New) The method of claim 11, wherein the step of repairing software
24 comprises: reformatting the first boot device and then copying software onto the first boot
25 device; or resetting parameters in a persistent memory and then copying software onto the
26 first boot device.

1 19. (New) The method of claim 10, wherein before the step of repairing software
2 the following step is performed: offering a user a choice of thoroughness of repair selected
3 from the set of repairs consisting of a quick repair that re-installs or copies template software
4 without first re-formatting, a better repair that performs a high-level re-format before that
5 copy or re-installation of software, and a best repair that performs a low-level re-format
6 before copying over or re-installing software.

7 20. (New) The method of claim 13, wherein before the step of repairing software
8 the following step is performed: offering a user a choice of thoroughness of repair selected
9 from the set of repairs consisting of a quick repair that re-installs or copies template software
10 without first re-formatting, a better repair that performs a high-level re-format before that
11 copy or re-installation of software, and a best repair that performs a low-level re-format
12 before copying over or re-installing software.
